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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,876	08/06/2003	Hideki Iwata	1713.1008	8217

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EXAMINER

ROJAS, BERNARD

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/634,876

Applicant(s)

IWATA ET AL.

Examiner

Bernard Rojas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-11,15,18,22,24,26,27,30-38,40,41,43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6-11,22 and 40 is/are rejected.
- 7) ☒ Claim(s) 4,5,15,18,24,26,27,30-38,43,44 and 46 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>05092006 12302005</u> . | 6) <input checked="" type="checkbox"/> Other: <u>08062003</u> .                         |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Invention I – Embodiment I, figures 1-3 and 6A-6C, in the reply filed on 03/13/2006 is acknowledged.

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the movable portion and the frame having an identical thickness [Claim 46] must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 recites the limitation "the substrate" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the substrate" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the substrate" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6-11, 22, and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Seki et al. (US 6,734,513).

Claim 1, Seki et al. discloses a micro-relay comprising: a first substrate [10] having stationary contacts [14b, 15b] and a stationary electrode [11]; a second substrate [40] arranged so as to face the first substrate; and a movable plate [20] arranged between the first and second substrates, the movable plate having a frame [22, 23, 30] and a movable portion, the frame being sandwiched between the first and second substrates to realize a hermetical sealed structure [Fig. 4], the movable portion having a movable electrode [24] facing the stationary electrode, and a movable contact [28] facing the stationary contacts, the movable portion moving between the first and second substrates due to electrostatic attraction that develops between the movable electrode and the stationary electrode [Col. 6, lines 35-45].

Claim 6, as best understood, Seki et al. discloses the micro-relay as claimed in claim 1, wherein the substrate has through holes via which interconnection lines extending from the first substrate are extracted to an outside of the micro-relay [Fig. 4].

Claim 7, as best understood, Seki et al. discloses the micro-relay as claimed in claim 1, wherein the substrate has through holes via which interconnection lines extending from the movable plate are extracted to an outside of the micro-relay [Fig. 4].

Claim 8, as best understood, Seki et al. discloses the micro-relay as claimed in claim 1, wherein interconnection lines extending from the first substrate to an outside of the micro-relay are flush with a surface of the first substrate [Fig. 4].

Claim 9, Seki et al. discloses the micro-relay as claimed in claim 1, wherein the movable portion is coupled to the frame by elastically deformable members [23].

Claim 10, Seki et al. discloses the micro-relay as claimed in claim 1, wherein the movable portion is coupled to the frame by hinge springs [23].

Claim 11, Seki et al. discloses the micro-relay as claimed in claim 1, wherein the movable portion is coupled to the frame by hinge springs arranged symmetrically [23, Fig. 3].

Claim 22, Seki et al. discloses the micro-relay as claimed in claim 1, wherein the second substrate has a flat plate shape [Fig. 4].

Claim 40, Seki et al. discloses the micro-relay as claimed in claim 1, wherein the frame has a thickness that defines spaces between the movable plate and the first stationary contact and between the movable plate and the second stationary contact [Fig. 4].

#### ***Allowable Subject Matter***

Claims 4, 5, 15, 18, 24, 26, 27, 30-38, 43, 44, 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Rojas whose telephone number is (571) 272-1998. The examiner can normally be reached on M-F 8-4:00), every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Bernard Rojas*  
Br

*File*  
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*5/30/06*